

CRF Processing Date: 5/7/2002  
 Edited by: AW  
 Verified by: PCW/09 (STIC staff)

Serial Number: 09/831,061

**ENTERED**

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: \_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☒ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.



PCT09

## RAW SEQUENCE LISTING

DATE: 05/07/2002

PATENT APPLICATION: US/09/831,061

TIME: 17:26:59

Input Set : N:\jumbos\831061.txt

Output Set: N:\CRF3\05072002\I831061.raw

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3 <110> APPLICANT: PIERRE FABRE MEDICAMENT
5 <120> TITLE OF INVENTION: Use of an enterobacterium protein OmpA for specific
targeting towards
6     antigen-presenting cells
8 <130> FILE REFERENCE: D17777
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/831,061
C--> 10 <141> CURRENT FILING DATE: 2002-03-25
10 <150> PRIOR APPLICATION NUMBER: FR 98 14007
11 <151> PRIOR FILING DATE: 1998-11-06
13 <150> PRIOR APPLICATION NUMBER: PCT/FR99/02734
14 <151> PRIOR FILING DATE: 1999-11-08
16 <160> NUMBER OF SEQ ID NOS: 2
18 <170> SOFTWARE: PatentIn Ver. 2.2
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1035
22 <212> TYPE: DNA
23 <213> ORGANISM: Klebsiella pneumoniae
25 <220> FEATURE:
26 <221> NAME/KEY: exon
27 <222> LOCATION: (1)..(1032)
29 <220> FEATURE:
30 <221> NAME/KEY: intron
31 <222> LOCATION: (1033)..(1035)
33 <220> FEATURE:
34 <221> NAME/KEY: CDS
35 <222> LOCATION: (1)..(1032)
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39 Met Lys Ala Ile Phe Val Leu Asn Ala Ala Pro Lys Asp Asn Thr Trp
40 1          5          10          15
42 tat gca ggt ggt aaa ctg ggt tgg tcc cag tat cac gac acc ggt ttc      96
43 Tyr Ala Gly Gly Lys Leu Gly Trp Ser Gln Tyr His Asp Thr Gly Phe
44          20          25          30
46 tac ggt aac ggt ttc cag aac aac aac ggt ccg acc cgt aac gat cag      144
47 Tyr Gly Asn Gly Phe Gln Asn Asn Asn Gly Pro Thr Arg Asn Asp Gln
48          35          40          45
50 ctt ggt gct ggt gcg ttc ggt ggt tac cag gtt aac ccg tac ctc ggt      192
51 Leu Gly Ala Gly Ala Phe Gly Gly Tyr Gln Val Asn Pro Tyr Leu Gly
52          50          55          60
54 ttc gaa atg ggt tat gac tgg ctg ggc cgt atg gca tat aaa ggc agc      240
55 Phe Glu Met Gly Tyr Asp Trp Leu Gly Arg Met Ala Tyr Lys Gly Ser
56 65          70          75          80
58 gtt gac aac ggt gct ttc aaa gct cag ggc gtt cag ctg acc gct aaa      288
59 Val Asp Asn Gly Ala Phe Lys Ala Gln Gly Val Gln Leu Thr Ala Lys

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Input Set : N:\jumbos\831061.txt

Output Set: N:\CRF3\05072002\I831061.raw

60	85	90	95	
62	ctg ggt tac ccg atc act gac gat	ctg gac atc tac acc cgt	ctg ggc	336
63	Leu Gly Tyr Pro Ile Thr Asp Asp	Leu Asp Ile Tyr Thr Arg	Leu Gly	
64	100	105	110	
66	ggc atg gtt tgg cgc gct gac tcc	aaa ggc aac tac gct tct	acc ggc	384
67	Gly Met Val Trp Arg Ala Asp Ser	Lys Gly Asn Tyr Ala Ser Thr	Gly	
68	115	120	125	
70	gtt tcc cgt agc gaa cac gac act	ggc gtt tcc cca gta ttt gct	ggc	432
71	Val Ser Arg Ser Glu His Asp Thr	Gly Val Ser Pro Val Phe Ala	Gly	
72	130	135	140	
74	ggc gta gag tgg gct gtt act cgt	gac atc gct acc cgt ctg gaa	tac	480
75	Gly Val Glu Trp Ala Val Thr Arg	Asp Ile Ala Thr Arg Leu Glu	Tyr	
76	145	150	155	160
78	cag tgg gtt aac aac atc ggc gac	gcg ggc act gtg ggt acc cgt	cct	528
79	Gln Trp Val Asn Asn Ile Gly Asp	Ala Gly Thr Val Gly Thr Arg	Pro	
80	165	170	175	
82	gat aac ggc atg ctg agc ctg ggc	gtt tcc tac cgc ttc ggt cag	gaa	576
83	Asp Asn Gly Met Leu Ser Leu Gly	Val Ser Tyr Arg Phe Gly Gln	Glu	
84	180	185	190	
86	gat gct gca ccg gtt gtt gct ccg	gct ccg gct ccg gct ccg gaa	gtg	624
87	Asp Ala Ala Pro Val Val Ala Pro	Ala Pro Ala Pro Ala Pro Glu	Val	
88	195	200	205	
90	gct acc aag cac ttc acc ctg aag	tct gac gtt ctg ttc aac ttc	aac	672
91	Ala Thr Lys His Phe Thr Leu Lys	Ser Asp Val Leu Phe Asn Phe	Asn	
92	210	215	220	
94	aaa gct acc ctg aaa ccg gaa ggt	cag cag gct ctg gat cag ctg	tac	720
95	Lys Ala Thr Leu Lys Pro Glu Gly	Gln Gln Ala Leu Asp Gln Leu	Tyr	
96	225	230	235	240
98	act cag ctg agc aac atg gat ccg	aaa gac ggt tcc gct gtt gtt	ctg	768
99	Thr Gln Leu Ser Asn Met Asp Pro	Lys Asp Gly Ser Ala Val Val	Leu	
100	245	250	255	
102	ggc tac acc gac cgc atc ggt tcc	gaa gct tac aac cag cag ctg	tct	816
103	Gly Tyr Thr Asp Arg Ile Gly Ser	Glu Ala Tyr Asn Gln Gln Leu	Ser	
104	260	265	270	
106	gag aaa cgt gct cag tcc gtt gtt	gac tac ctg gtt gct aaa ggc	atc	864
107	Glu Lys Arg Ala Gln Ser Val Val	Asp Tyr Leu Val Ala Lys Gly	Ile	
108	275	280	285	
110	ccg gct ggc aaa atc tcc gct cgc	ggc atg ggt gaa tcc aac ccg	gtt	912
111	Pro Ala Gly Lys Ile Ser Ala Arg	Gly Met Gly Glu Ser Asn Pro	Val	
112	290	295	300	
114	act ggc aac acc tgt gac aac gtg	aaa gct cgc gct gcc ctg atc	gat	960
115	Thr Gly Asn Thr Cys Asp Asn Val	Lys Ala Arg Ala Ala Leu Ile	Asp	
116	305	310	315	320
118	tgc ctg gct ccg gat cgt cgt gta	gag atc gaa gtt aaa ggc tac	aaa	1008
119	Cys Leu Ala Pro Asp Arg Arg Val	Glu Ile Glu Val Lys Gly Tyr	Lys	
120	325	330	335	
122	gaa gtt gta act cag ccg gcg ggt	taa		1035
123	Glu Val Val Thr Gln Pro Ala Gly			
124	340			

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DATE: 05/07/2002

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TIME: 17:26:59

Input Set : N:\jumbos\831061.txt

Output Set: N:\CRF3\05072002\I831061.raw

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127 <210> SEQ ID NO: 2
128 <211> LENGTH: 344
129 <212> TYPE: PRT
130 <213> ORGANISM: Klebsiella pneumoniae
132 <400> SEQUENCE: 2
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134 1 5 10 15
136 Tyr Ala Gly Gly Lys Leu Gly Trp Ser Gln Tyr His Asp Thr Gly Phe
137 20 25 30
139 Tyr Gly Asn Gly Phe Gln Asn Asn Gly Pro Thr Arg Asn Asp Gln
140 35 40 45
142 Leu Gly Ala Gly Ala Phe Gly Gly Tyr Gln Val Asn Pro Tyr Leu Gly
143 50 55 60
145 Phe Glu Met Gly Tyr Asp Trp Leu Gly Arg Met Ala Tyr Lys Gly Ser
146 65 70 75 80
148 Val Asp Asn Gly Ala Phe Lys Ala Gln Gly Val Gln Leu Thr Ala Lys
149 85 90 95
151 Leu Gly Tyr Pro Ile Thr Asp Asp Leu Asp Ile Tyr Thr Arg Leu Gly
152 100 105 110
154 Gly Met Val Trp Arg Ala Asp Ser Lys Gly Asn Tyr Ala Ser Thr Gly
155 115 120 125
157 Val Ser Arg Ser Glu His Asp Thr Gly Val Ser Pro Val Phe Ala Gly
158 130 135 140
160 Gly Val Glu Trp Ala Val Thr Arg Asp Ile Ala Thr Arg Leu Glu Tyr
161 145 150 155 160
163 Gln Trp Val Asn Asn Ile Gly Asp Ala Gly Thr Val Gly Thr Arg Pro
164 165 170 175
166 Asp Asn Gly Met Leu Ser Leu Gly Val Ser Tyr Arg Phe Gly Gln Glu
167 180 185 190
169 Asp Ala Ala Pro Val Val Ala Pro Ala Pro Ala Pro Ala Pro Glu Val
170 195 200 205
172 Ala Thr Lys His Phe Thr Leu Lys Ser Asp Val Leu Phe Asn Phe Asn
173 210 215 220
175 Lys Ala Thr Leu Lys Pro Glu Gly Gln Gln Ala Leu Asp Gln Leu Tyr
176 225 230 235 240
178 Thr Gln Leu Ser Asn Met Asp Pro Lys Asp Gly Ser Ala Val Val Leu
179 245 250 255
181 Gly Tyr Thr Asp Arg Ile Gly Ser Glu Ala Tyr Asn Gln Gln Leu Ser
182 260 265 270
184 Glu Lys Arg Ala Gln Ser Val Val Asp Tyr Leu Val Ala Lys Gly Ile
185 275 280 285
187 Pro Ala Gly Lys Ile Ser Ala Arg Gly Met Gly Glu Ser Asn Pro Val
188 290 295 300
190 Thr Gly Asn Thr Cys Asp Asn Val Lys Ala Arg Ala Ala Leu Ile Asp
191 305 310 315 320
193 Cys Leu Ala Pro Asp Arg Arg Val Glu Ile Glu Val Lys Gly Tyr Lys
194 325 330 335
196 Glu Val Val Thr Gln Pro Ala Gly
197 340

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/831,061

DATE: 05/07/2002

TIME: 17:27:00

Input Set : N:\jumbos\831061.txt

Output Set: N:\CRF3\05072002\I831061.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date



PCT09

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,061

DATE: 05/02/2002

TIME: 13:36:47

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF3\05022002\I831061.raw

Does Not Comply  
Corrected Diskette Needed

3 <110> APPLICANT: PIERRE FABRE MDICAMENT  
 5 <120> TITLE OF INVENTION: Use of an enterobacterium protein OmpA for specific  
 targeting towards  
 6 antigen-presenting cells  
 8 <130> FILE REFERENCE: D17777  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/831,061  
 C--> 10 <141> CURRENT FILING DATE: 2002-03-25  
 10 <150> PRIOR APPLICATION NUMBER: FR 98 14007  
 11 <151> PRIOR FILING DATE: 1998-11-06  
 13 <150> PRIOR APPLICATION NUMBER: PCT/FR99/02734  
 14 <151> PRIOR FILING DATE: 1999-11-08  
 16 <160> NUMBER OF SEQ ID NOS: 2  
 18 <170> SOFTWARE: PatentIn Ver. 2.2

## ERRORED SEQUENCES

127 <210> SEQ ID NO: 2  
 128 <211> LENGTH: 344  
 129 <212> TYPE: PRT  
 130 <213> ORGANISM: Klebsiella pneumoniae  
 132 <400> SEQUENCE: 2  
 133 Met Lys Ala Ile Phe Val Leu Asn Ala Ala Pro Lys Asp Asn Thr Trp  
 134 1 5 10 15  
 136 Tyr Ala Gly Gly Lys Leu Gly Trp Ser Gln Tyr His Asp Thr Gly Phe  
 137 20 25 30  
 139 Tyr Gly Asn Gly Phe Gln Asn Asn Asn Gly Pro Thr Arg Asn Asp Gln  
 140 35 40 45  
 142 Leu Gly Ala Gly Ala Phe Gly Gly Tyr Gln Val Asn Pro Tyr Leu Gly  
 143 50 55 60  
 145 Phe Glu Met Gly Tyr Asp Trp Leu Gly Arg Met Ala Tyr Lys Gly Ser  
 146 65 70 75 80  
 148 Val Asp Asn Gly Ala Phe Lys Ala Gln Gly Val Gln Leu Thr Ala Lys  
 149 85 90 95  
 151 Leu Gly Tyr Pro Ile Thr Asp Asp Leu Asp Ile Tyr Thr Arg Leu Gly  
 152 100 105 110  
 154 Gly Met Val Trp Arg Ala Asp Ser Lys Gly Asn Tyr Ala Ser Thr Gly  
 155 115 120 125  
 157 Val Ser Arg Ser Glu His Asp Thr Gly Val Ser Pro Val Phe Ala Gly  
 158 130 135 140  
 160 Gly Val Glu Trp Ala Val Thr Arg Asp Ile Ala Thr Arg Leu Glu Tyr  
 161 145 150 155 160  
 163 Gln Trp Val Asn Asn Ile Gly Asp Ala Gly Thr Val Gly Thr Arg Pro  
 164 165 170 175

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,061

DATE: 05/02/2002

TIME: 13:36:47

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF3\05022002\I831061.raw

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170      195      200      205
172 Ala Thr Lys His Phe Thr Leu Lys Ser Asp Val Leu Phe Asn Phe Asn
173      210      215      220
175 Lys Ala Thr Leu Lys Pro Glu Gly Gln Gln Ala Leu Asp Gln Leu Tyr
176 225      230      235      240
178 Thr Gln Leu Ser Asn Met Asp Pro Lys Asp Gly Ser Ala Val Val Leu
179      245      250      255
181 Gly Tyr Thr Asp Arg Ile Gly Ser Glu Ala Tyr Asn Gln Gln Leu Ser
182      260      265      270
184 Glu Lys Arg Ala Gln Ser Val Val Asp Tyr Leu Val Ala Lys Gly Ile
185      275      280      285
187 Pro Ala Gly Lys Ile Ser Ala Arg Gly Met Gly Glu Ser Asn Pro Val
188      290      295      300
190 Thr Gly Asn Thr Cys Asp Asn Val Lys Ala Arg Ala Ala Leu Ile Asp
191 305      310      315      320
193 Cys Leu Ala Pro Asp Arg Arg Val Glu Ile Glu Val Lys Gly Tyr Lys
194      325      330      335
196 Glu Val Val Thr Gln Pro Ala Gly
197      340

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E--> 201 1  
E--> 203 1

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/831,061

DATE: 05/02/2002

TIME: 13:36:48

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF3\05022002\I831061.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:201 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2

M:332 Repeated in SeqNo=2